REMARKS

Claims 1-3, 5, 7, 9-12, 15, 16, 18-21 and 24-30 are pending in the present application, were examined, and stand rejected. Claims 1, 11, 12, 15, 16, 21, 24 and 27-30 are amended, no claims are cancelled and Claims 31 and 32 are added. Claims 4, 6, 8, 13, 14, 17 and 22-23 were previously cancelled. Applicant reserves the right to prosecute the former claims in a divisional or continuation application. Applicant respectfully requests reconsideration of pending Claims 1, 5-7, 9-12, 15, 16, 18-21, and 24-32, as amended and in view of at least the following remarks.

I. Claim Objections

Claim 1 provides essential structural cooperative relationship between the elements in compliance with MPEP §2172.01. Accordingly, Applicant respectfully submits that Claim 1 is in compliance with 35 U.S.C. §112, second paragraph, by particularly pointing out and distinctly claiming the subject matter, which Applicant regards as the invention. Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the 35 U.S.C. §112, second paragraph, rejection of Claims 1, 5, 7, 9 and 10.

II. Claims Rejected Under 35 U.S.C. §102

The Patent Office has rejected Claims 1-6, 8-11 and 13-26 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,545,489 issued to Frank, Jr. et al. ("Frank"). Applicant respectfully traverses this rejection.

Applicant respectfully asserts that the Examiner has failed to adequately set forth a *prima facie* rejection under 35 U.S.C. §102(b). "Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, *arranged as in the claim.*" *Lindemann Maschinenfabrik v. American Hoist & Derrick* ("Lindemann"), *730 F.2d 452, 1458 (Fed. Cir. 1994)*(emphasis added). Additionally, each and every element of the claim must be exactly disclosed in the anticipatory reference. *Titanium Metals Corp. of American v. Banner* ("Banner Titanium"), *778 F.2d 775, 777 (Fed. Cir. 1985).*

Claim 1, as amended, includes the following claim feature, which is neither taught nor suggested by either Frank or the references of record:

> a protected storage medium coupled to the host processor to enable <u>secure exchange of a protected message</u> between the <u>pre-operating system software program</u> and the <u>operating system present software program</u>. (Emphasis added.)

By way of contrast, <u>Frank</u> describes a system for fast restoration of a complete operating image in computer system memory, which is secure from attack by a virus or inadvertent corruption during operation of the computer. (*See* col. 1, lines 10–13.) According to <u>Frank</u>:

> The portion of the storage capacity on disks 303 is partitioned to provide a <u>protected area</u> . . . known to the disk control program but are <u>inaccessible to host computer 330</u> . . . is sufficient to store an image source 304 suitable to recreate a fully functional operating image in memory 340. (Col. 5, lines 34-40.) (Emphasis added.)

> A host memory image may be pre-loaded with a host memory image source in a protect area on the disk as illustrated in FIG. 4. (*See* col. 7, lines 8–10). Update of the host memory image may be performed by drive microprocessor 310. (*See* col. 7, lines 23-37.)

Accordingly, as illustrated in FIGS. 3 and 4 of <u>Frank</u>, the <u>protected area is not coupled to a host processor</u> as required by Claim 1. Further, memory image is <u>written by a drive micro-processor</u> and <u>not by a host processor executed pre-operating system software program</u>, as required by Claim 1.

A method for reading a memory image from within the protected memory area is described with reference to FIG. 7 of <u>Frank</u>. As is further described,

> [F]ollowing a power-up sequence, host interface controller 320 asserts state control signal 337 . . . causing <u>host microprocessor 332</u> to be maintained in an <u>inactive state</u>, such as a reset or hold.
> After state control signal is asserted, drive microprocessor 310, executing code in boot control ROM 322 reads a host memory image source 304 from the . . . protected area of disk 303 . . . <u>for writing into memory array 340</u>. (Col. 5, lines 43-51.) (Emphasis added.)

Accordingly, reading of memory image source 304 by <u>drive micro-processor 310, while the host microprocessor is inactive, does not or suggest secure exchange of a protected message as required by Claim 1</u>. Furthermore, as indicated by <u>Frank</u>:

> there is <u>no requirement for a BIOS ROM</u> in host computer 330 and overall no opportunity for a virus to contaminate the operating image stored on disk. (Col. 6, lines 4-10.) (Emphasis added.)

Accordingly, by eliminating a BIOS ROM (pre-operating system present software program), <u>Frank</u> fails to teach or suggest the protected storage medium coupled to a host processor to enable secure exchange of a protected message between <u>pre-operating system software program</u> and the operating system present software program, as required by Claim 1, as amended.

Consequently, for at least the reasons described above, Applicant submits that the amendment of Claim 1 to provide <u>secure exchange of protected messages</u> between <u>the host processor executed pre-operating system software program</u> and the <u>operating system present software program</u> prohibits the Examiner from establishing anticipation of Claim 1, as amended, over <u>Frank</u>. Accordingly, Applicant submits that Claim 1, as amended, is patentable over <u>Frank</u>, as well as the references of record.

Regarding Claims 5, 9 and 10, Claims 5, 9 and 10 depend from Claim 1 and therefore include the patentable claim features of Claim 1. Accordingly, Claims 5, 9 and 10, based on their dependency from Claim 1, are patentable over <u>Frank</u>, as well as the references of record. Consequently, Applicant respectfully requests the Examiner reconsider and withdraw the §102(e) rejection of Claims 5, 9 and 10.

Regarding Claims 11 and 21, Claims 11 and 21, as amended, include the following claim features, which are neither taught nor suggested by either <u>Frank</u> or the references of record:

> accessing, by a host processor executed pre-operating system software program by a protected storage medium.

As indicated above, the protected area of disks 303, as taught by <u>Frank</u>, is inaccessible and unknown to a host computer. (*See* col. 5, lines 34-40.) This protected area enables the storage of an operating system image, which may be loaded into memory array 340 by a drive microprocessor through each end executing code in a boot control ROM 322. (*See* col. 5, lines 43-51.) As such, <u>Frank</u> eliminates the need for a BIOS ROM of a host computer. (*See* col. 6, lines 4-10.)

Conversely, Claims 11 and 21 require access, by a host processor executed pre-operating system software program, to a protected storage medium. As described with reference to Claims 11 and 21, the pre-operating system software program relates to, for example, a BIOS program, which may be loaded within a memory coupled to a host processor.

Furthermore, Claims 11 and 21 require the following claim feature that is not taught by <u>Frank</u>:

> performing the pre-operating system software program boot-up procedure according to a protected message stored within the protected, storage medium by an operating system present software program.

Applicant respectfully submits that <u>Frank</u> provides no teachings or suggestions for the performance of a boot-up procedure according to a protected message stored within a protected

storage medium by an operating system present software program. Namely, since the host processor 332 <u>is unaware of the protected area</u>, the host processor or an operating system present software program executed by the host processor would not be capable of writing a boot-up procedure or boot-up information to the protected area, as taught by <u>Frank</u>.

Moreover, Claims 11 and 21 include the following claim feature, which is not taught by <u>Frank</u>:

> storing, by the pre-operating system software program, boot-up information within the protected storage medium to enable the operating system present software program according to the protected message.

Applicant respectfully submits that <u>Frank</u> teaches away from such a feature by eliminating host processor executed pre-operating system software programs (BIOS). (*See* col. 6, lines 4-10.)

Accordingly, Applicant respectfully submits that the amendments to Claims 11 and 21 to include the features as described above prohibit the Examiner from establishing a *prima facie* case of anticipation of Claims 11 and 21, as amended, under 35 U.S.C. §102(e). Consequently, Applicant respectfully requests that the Examiner reconsider and withdraw the §102(3) rejection of Claims 11 and 21.

Regarding Claims 15, 16 and 18-20, Claims 15, 16 and 18-20 depend from Claim 11, and therefore include the patentable claim features of Claim 11, as described above. Accordingly, Claims 15, 16 and 18-20, based on their dependency from Claim 11, and for at least the reasons described above, are also patentable over <u>Frank</u>, as well as the references of record. Consequently, Applicant respectfully requests that the Examiner reconsider and withdraw the §102(e) rejection of Claims 12, 15, 16 and 18-20.

Regarding Claims 24 and 25, Claims 24 and 25 depend from Claim 21, and therefore include the patentable claim features of Claim 21, as described above. Accordingly, Claims 24 and 25, based on their dependency from Claim 21, and for at least the reasons described above, are also patentable over the references of record. Consequently, Applicant respectfully requests that the Examiner reconsider and withdraw the §103(a) rejection of Claims 24 and 25.

III.   Claims Rejected Under 35 U.S.C. §103

The Patent Office has rejected Claims 7, 12 and 27-30 under 35 U.S.C. §103(a) as being unpatentable over <u>Frank</u>. Applicant respectfully traverses this rejection.

Applicant respectfully requests that the Examiner reconsider and withdraw the §103(a) rejection of Claims 7, 12 and 27-28 since Frank teaches away from host processor executed pre-operating system software programs. Hence, Frank could not be combined with any skill in the art or other cited references to perform user authentication, as described by Claims 7, 12 and 27-28. Therefore, Applicant respectfully requests that the Examiner reconsider and withdraw the §103(a) rejection of Claims 7, 12 and 27-28.

Regarding Claims 29 and 30, Claims 29 and 30 depend from Claim 21, and therefore include the patentable claim features of Claim 21, as described above. Furthermore, as indicated above, Frank specifically teaches away from host processor executed pre-operating system software programs. Accordingly, Frank could not be combined with any reference or teachings in the art, which provide a pre-operating system software program, which is host processor executed, to perform a boot-up procedure according to the protected message stored within a protected storage medium, as required by Claim 21. Consequently, Applicant respectfully requests that the Examiner reconsider and withdraw the §103(a) rejection of Claims 29-30.

Regarding the Applicant's amendments to Claims 1, 11, 12, 15, 16, 21, 24 and 27-30, Applicant respectfully submits the amendments to Claims 1, 11, 12, 15, 16, 21, 24 and 27-30 are required to place the application in condition for allowance; and therefore, does not includes or require any additional issues requiring the performance of a search. Accordingly, Applicant respectfully submits that the claim amendments to Claims 1, 11, 12, 15, 16, 21, 24 and 27-30 are properly entered in response to the Final Office Action.

CONCLUSION

Regarding the Applicant's amendments to Claims 1, 11, 12, 15, 16, 21, 24 and 27-30, Applicant respectfully submits the amendments to Claims 1, 11, 12, 15, 16, 21, 24 and 27-30 are required to place the application in condition for allowance; and therefore, does not includes or require any additional issues requiring the performance of a search. Accordingly, Applicant respectfully submits that the claim amendments to Claims 1, 11, 12, 15, 16, 21, 24 and 27-30 are properly entered in response to the Final Office Action.

In view of the foregoing, it is believed that all claims now pending (1) are in proper form, (2) are neither obvious nor anticipated by the relied upon art of record, and (3) are in condition for allowance. A Notice of Allowance is earnestly solicited at the earliest possible date. If the Examiner believes that a telephone conference would be useful in moving the application forward to allowance, the Examiner is encouraged to contact the undersigned at (310) 207-3800.

If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17, particularly, extension of time fees.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR, & ZAFMAN LLP

Dated: December 3, 2003   By: _____
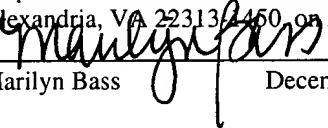   Joseph Lutz, Reg. No. 43,765

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